

**Flood Control Project Maintenance
Levee Inspections**

Fall 2018 Levee Maintenance Deficiency Summary Report

Overall LMA & Unit Ratings, including DWR Erosion Survey

San Joaquin River Basin

| RD0001 | Overall LMA Rating | Total LMA Miles | | | | | | |
|---|------------------------|------------------|--------------|-------------|-------------|---------|------------------------------|---------|
| Reclamation District No. 0001 Union Island | U | 1.14 | | | | | | |
| Rated Item | Maintenance Deficiency | | | | Enforcement | | Design & System Obsolescence | |
| | M Miles | U Miles | M + 4U Miles | Threshold % | M Miles | U Miles | M Miles | U Miles |
| <i>Earthen Levee</i> | | | | | | | | |
| Vegetation | | 2.28 | 9.12 | 801.36% | | | | |
| Trim / Thin Trees | 0.02 | | 0.02 | 1.76% | | | | |
| Encroachments | | | | | | 0.01 | | |
| Animal Control | | 0.04 | 0.16 | 14.06% | | | | |
| Slope Stability | 0.02 | | 0.02 | 1.76% | | | | |
| Erosion / Bank Caving | 0.02 | | 0.02 | 1.76% | | | | |
| Flood Preparedness & Training | 0.01 | | 0.01 | 0.88% | | | | |
| <i>Supplemental</i> | | | | | | | | |
| DWR UCIP Field Study | | | | | 0.02 | | | |
| 2017 Storm Damage | 0.02 | | 0.02 | 1.76% | | | | |
| <i>LMA Totals:</i> | 0.09 | 2.32 | 9.37 | 823.33% | 0.02 | 0.01 | 0.00 | 0.00 |
| Unit No. 01 Old River RB | Overall Unit Rating | Total Unit Miles | | | | | | |
| RD0001 | U | 1.14 | | | | | | |
| Rated Item | Maintenance Deficiency | | | | Enforcement | | Design & System Obsolescence | |
| | M Miles | U Miles | M + 4U Miles | Threshold % | M Miles | U Miles | M Miles | U Miles |
| <i>Earthen Levee</i> | | | | | | | | |
| Vegetation | | 2.28 | 9.12 | 801.36% | | | | |
| Trim / Thin Trees | 0.02 | | 0.02 | 1.76% | | | | |
| Encroachments | | | | | | 0.01 | | |
| Animal Control | | 0.04 | 0.16 | 14.06% | | | | |
| Slope Stability | 0.02 | | 0.02 | 1.76% | | | | |
| Erosion / Bank Caving | 0.02 | | 0.02 | 1.76% | | | | |
| <i>Supplemental</i> | | | | | | | | |
| DWR UCIP Field Study | | | | | 0.02 | | | |
| 2017 Storm Damage | 0.02 | | 0.02 | 1.76% | | | | |
| <i>Unit Totals:</i> | 0.08 | 2.32 | 9.36 | 822.45% | 0.02 | 0.01 | 0.00 | 0.00 |

**Flood Control Project Maintenance
Levee Inspections****LMA District Cover Sheet****Fall 2018 Levee Inspection Results****Reclamation District No. 0001 Union Island**

| | Spring (March - May) | Summer ** (June - August) | Fall (September - November) | Winter ** (December - February) |
|----------------------------------|-------------------------|------------------------------|--------------------------------|------------------------------------|
| † Overall LMA Rating (Fall Only) | | | U | |

** Non-receipt of Summer or Winter Inspection
Reports may effect overall annual rating.

† **SPRING INSPECTIONS:** Overall maintenance ratings are not determined for the spring inspection results. Individual maintenance deficiencies are rated using the same criteria in the spring and in the fall.

FALL INSPECTIONS: The overall maintenance rating shown above is based on operation and maintenance deficiencies identified within the attached unit inspection reports. This rating is not intended to be an indication of risk.

Comments

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**Flood Control Project Maintenance
Levee Inspections**

Unit Cover Sheet

Fall 2018 Levee Inspection Results

Reclamation District No. 0001 Union Island

| Waterway | | | Bank | Unit Miles |
|--|-------------------------|---------------------------|--------------------------------|---------------------------------|
| Unit No. 01 Old River | | | Right | 1.14 |
| | Spring (March - May) | Summer (June - August) | (September - November) Fall | Winter (December - February) |
| Unit Maintenance Rating (Fall Only) | | | U | |
| Date of Inspection | 5/17/2018 - 5/17/2018 | | 10/9/2018 - 10/9/2018 | |
| DWR Inspector | Richard Willoughby | | Richard Willoughby | |
| Accompanied By | | | | |

Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

<http://cdec.water.ca.gov/lma.html>

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 0001 Union Island

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|-----------------------|-------|------------|--------------------------|--------------------|
| Unit No. 01 Old River | Right | 1.14 | 10/09/2018 10/09/2018 | Richard Willoughby |

| | | | | | |
|--|-------------------------------|--------------|----|------------------------|----------|
| LM Start | | Rating ** | M | Issue No. | 6 |
| LM End | | Issue Type + | Ma | Location * | N/A |
| Category | Earthen Levee | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | Flood Preparedness & Training | | | ° | ° |
| | | | | ° | ° |
| DWR ID | DWR_RD0001_01_s_2013_6 | | | | |
| Comment Code | | | | | |
| | | | | | |
| Inspector Comment | | | | | |
| The LMA has not attended a flood fight training class in the past few years. They do have an emergency plan. | | | | | |

No Photos

| | | | | | |
|---|--------------------------------|--------------|----|------------------------|----------|
| LM Start | | Rating ** | A | Issue No. | 8 |
| LM End | | Issue Type + | Ma | Location * | N/A |
| Category | Earthen Levee | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | Emergency Supplies & Equipment | | | ° | ° |
| | | | | ° | ° |
| DWR ID | DWR_RD0001_01_s_2013_8 | | | | |
| Comment Code | | | | | |
| | | | | | |
| Inspector Comment | | | | | |
| The LMA has emergency supplies on-site. | | | | | |

No Photos

| | | | | | |
|---|----------------------------------|--------------|----|------------------------|----------|
| LM Start | | Rating ** | A | Issue No. | 9 |
| LM End | | Issue Type + | Ma | Location * | N/A |
| Category | Earthen Levee | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | Operations & Maintenance Manuals | | | ° | ° |
| | | | | ° | ° |
| DWR ID | DWR_RD0001_01_s_2013_9 | | | | |
| Comment Code | | | | | |
| | | | | | |
| Inspector Comment | | | | | |
| The LMA has a copy of the O&M Manual available at the office. | | | | | |

No Photos

| | | | |
|--|--|---|---|
| * Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown | ** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable | N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain | + Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement |
|--|--|---|---|

Levee Inspection Report By Mile - Fall 2018

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|-----------------------|-------|------------|--------------------------|--------------------|
| Unit No. 01 Old River | Right | 1.14 | 10/09/2018 10/09/2018 | Richard Willoughby |

Photo 1 of 1 : FA_2018_RD0001_23_13_20181011_00023.jpg



10 09 2018

Looking southwest at typical view of landward slope.

Photo 1 of 1 : FA_2018_RD0001_23_20_20181011_00024.jpg



10 09 2014

Looking east at typical view of waterward slope.

| * Location | ** Rating | + Issue Type |
|---|---|--|
| LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown | A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain | Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement |

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 0001 Union Island

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|-----------------------|-------|------------|--------------------------|--------------------|
| Unit No. 01 Old River | Right | 1.14 | 10/09/2018 10/09/2018 | Richard Willoughby |

| | | | | | | |
|---|----------------------|--------------|----|------------------------|---------------|-----|
| LM Start | 0.02 | Rating ** | M | Issue No. | 21 | |
| LM End | 0.02 | Issue Type + | En | Location * | | |
| Category | Supplemental | | | GPS Latitude/Longitude | | |
| | | | | Start | | End |
| Item | DWR UCIP Field Study | | | 37.822433 ° | 37.822433 ° | |
| | | | | -121.375734 ° | -121.375734 ° | |
| DWR ID | 22688 | | | | | |
| Comment Code | | | | | | |
| | | | | | | |
| Inspector Comment | | | | | | |
| FS_ID:52628 | | | | | | |
| DS_ID:22688 | | | | | | |
| EP_NO: 6708 | | | | | | |
| Repair Type: Non-Urgent | | | | | | |
| Crossing Status: Found | | | | | | |
| UCIP Comments: - Pipe has leaks on WS that may cause erosion to slope.- 2" electric conduit on WS.- power pole on LS | | | | | | |
| FIELD_STRUCT_DESC: 12-inch coated steel irrigation discharge pipe through the levee, 5 feet below the crown. Slant pump on the waterside (WS) slope. Air valve on the landside (LS) shoulder. Electrical conduit through the levee. Pipe discharges into a distribution box on the LS toe. (Plans to install a new pump and pipe through the levee authorized under Permit No. 6708, 1969 - Cyril S. Lamb Jr.). [Additional Reference(s): DWR Levee Log, 2005]. | | | | | | |
| FS Date: 5/30/2018 | | | | | | |

| | | | | | |
|----------|-------------|--------------|----|------------|------------------|
| LM Start | 0.02 | Rating ** | M | Issue No. | 21 (cont) |
| LM End | 0.02 | Issue Type + | En | Location * | |

Photo 1 of 3 : UCIP_FA_2018_52628_36036.jpg



WS view: steel pipe and slant pump on levee slope. Pump on concrete pad.

Photo 2 of 3 : UCIP_FA_2018_52628_36034.jpg



LS view: air relief valve on levee slope and concrete distribution box on levee toe.

| | | | |
|--|--|---|---|
| * Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown | ** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable | N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain | + Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement |
|--|--|---|---|

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 0001 Union Island

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|-----------------------|-------|------------|--------------------------|--------------------|
| Unit No. 01 Old River | Right | 1.14 | 10/09/2018 10/09/2018 | Richard Willoughby |

| | | | | | | |
|---|----------------------|--------------|----|------------------------|---------------|-----|
| LM Start | 0.02 | Rating ** | M | Issue No. | 21 (cont) | |
| LM End | 0.02 | Issue Type + | En | Location * | | |
| Category | Supplemental | | | GPS Latitude/Longitude | | |
| | | | | Start | | End |
| Item | DWR UCIP Field Study | | | 37.822433 ° | 37.822433 ° | |
| | | | | -121.375734 ° | -121.375734 ° | |
| DWR ID | 22688 | | | | | |
| Comment Code | | | | | | |
| | | | | | | |
| Inspector Comment | | | | | | |
| FS_ID:52628 | | | | | | |
| DS_ID:22688 | | | | | | |
| EP_NO: 6708 | | | | | | |
| Repair Type: Non-Urgent | | | | | | |
| Crossing Status: Found | | | | | | |
| UCIP Comments: - Pipe has leaks on WS that may cause erosion to slope.- 2" electric conduit on WS.- power pole on LS | | | | | | |
| FIELD_STRUCT_DESC: 12-inch coated steel irrigation discharge pipe through the levee, 5 feet below the crown. Slant pump on the waterside (WS) slope. Air valve on the landside (LS) shoulder. Electrical conduit through the levee. Pipe discharges into a distribution box on the LS toe. (Plans to install a new pump and pipe through the levee authorized under Permit No. 6708, 1969 - Cyril S. Lamb Jr.). [Additional Reference(s): DWR Levee Log, 2005]. | | | | | | |
| FS Date: 5/30/2018 | | | | | | |

Photo 3 of 3 : UCIP_FA_2018_52628_77561.jpg



WS view: leaking irrigation pipe may cause damage to WS slope.

| | | | | | |
|---|-------------------------|--------------|----|------------------------|---------------|
| LM Start | 0.03 | Rating ** | M | Issue No. | 16 |
| LM End | 0.03 | Issue Type + | Ma | Location * | LS |
| Category | Earthen Levee | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | Trim / Thin Trees | | | 37.822390 ° | 37.822390 ° |
| | | | | -121.376084 ° | -121.376084 ° |
| DWR ID | DWR_RD0001_01_s_2018_16 | | | | |
| Comment Code | | | | | |
| T1 : Trim trees to at least five feet above ground level. | | | | | |
| Inspector Comment | | | | | |
| | | | | | |

No Photos

| | | | |
|--|--|---|---|
| * Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown | ** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable | N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain | + Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement |
|--|--|---|---|

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 0001 Union Island

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|-----------------------|-------|------------|--------------------------|--------------------|
| Unit No. 01 Old River | Right | 1.14 | 10/09/2018 10/09/2018 | Richard Willoughby |

| | | | | | |
|---|-------------------------|--------------|----|------------------------|---------------|
| LM Start | 0.17 | Rating ** | N | Issue No. | 12 |
| LM End | 0.17 | Issue Type + | Ma | Location * | WS |
| Category | Earthen Levee | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | Trim / Thin Trees | | | 37.821376 ° | 37.821376 ° |
| | | | | -121.378044 ° | -121.378044 ° |
| DWR ID | DWR_RD0001_01_s_2014_12 | | | | |
| Comment Code | | | | | |
| T5 : Tree stumps. | | | | | |
| Inspector Comment | | | | | |
| Remove stump when it becomes rotted to prevent possible seepage path along the roots. | | | | | |

Photo 1 of 1 : FA_2018_RD0001_23_12_20180906_00010.jpg



View of the tree stump on the waterside levee slope.

| | | | | | |
|--|-------------------------|--------------|----|------------------------|---------------|
| LM Start | 0.21 | Rating ** | M | Issue No. | 18 |
| LM End | 0.21 | Issue Type + | Ma | Location * | LS |
| Category | Earthen Levee | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | Erosion / Bank Caving | | | 37.820806 ° | 37.820806 ° |
| | | | | -121.378260 ° | -121.378260 ° |
| DWR ID | DWR_RD0001_01_s_2017_18 | | | | |
| Comment Code | | | | | |
| E2 : Schedule repair of erosion site prior to the next inspection. | | | | | |
| Inspector Comment | | | | | |
| | | | | | |

Photo 1 of 1 : FA_2018_RD0001_23_18_20180906_00015.jpg



View of the erosion on the levee slope.

| | | | | | |
|--------------------------------------|-------------------------|--------------|----|------------------------|---------------|
| LM Start | 0.25 | Rating ** | U | Issue No. | 17 |
| LM End | 0.25 | Issue Type + | En | Location * | LS |
| Category | Earthen Levee | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | Encroachments | | | 37.820298 ° | 37.820298 ° |
| | | | | -121.378457 ° | -121.378457 ° |
| DWR ID | DWR_RD0001_01_s_2018_17 | | | | |
| Comment Code | | | | | |
| RA : Ramp | | | | | |
| Inspector Comment | | | | | |
| Unauthorized ramp on landward slope. | | | | | |

Photo 1 of 2 : FA_2018_RD0001_23_17_20180906_00013.jpg



| | | | |
|--|--|---|---|
| * Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown | ** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable | N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain | + Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement |
|--|--|---|---|

**Flood Control Project Maintenance
Levee Inspections**

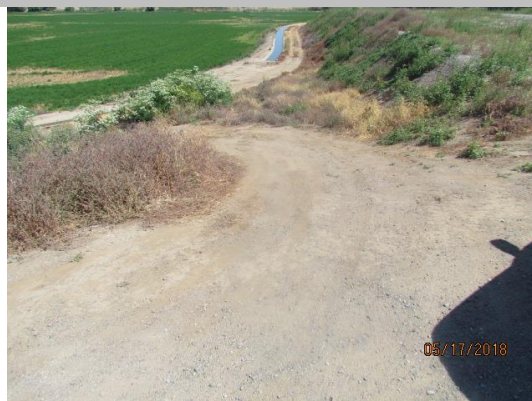
Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 0001 Union Island

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|-----------------------|-------|------------|--------------------------|--------------------|
| Unit No. 01 Old River | Right | 1.14 | 10/09/2018 10/09/2018 | Richard Willoughby |

| | | | | | | |
|--------------------------------------|-------------------------|--------------|----|------------------------|---------------|-----|
| LM Start | 0.25 | Rating ** | U | Issue No. | 17 (cont) | |
| LM End | 0.25 | Issue Type + | En | Location * | LS | |
| Category | Earthen Levee | | | GPS Latitude/Longitude | | |
| | | | | Start | | End |
| Item | Encroachments | | | 37.820298 ° | 37.820298 ° | |
| | | | | -121.378457 ° | -121.378457 ° | |
| DWR ID | DWR_RD0001_01_s_2018_17 | | | | | |
| Comment Code | | | | | | |
| RA : Ramp | | | | | | |
| Inspector Comment | | | | | | |
| Unauthorized ramp on landward slope. | | | | | | |

Photo 2 of 2 : FA_2018_RD0001_23_17_20180906_00014.jpg



Looking east at unauthorized ramp on landward slope. (Spring 2018)

| | | | | | |
|---|---------------------------|--------------|----|------------------------|---------------|
| LM Start | 0.31 | Rating ** | M | Issue No. | 11 |
| LM End | 0.33 | Issue Type + | Ma | Location * | |
| Category | Supplemental | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | 2017 Storm Damage | | | 37.820300 ° | 37.820200 ° |
| | | | | -121.379500 ° | -121.379800 ° |
| DWR ID | DWR_RD0001_01_f _ 2017_11 | | | | |
| Comment Code | | | | | |
| | | | | | |
| Inspector Comment | | | | | |
| Levee Evaluation Comments | | | | | |
| Description:Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage. | | | | | |
| Site ID No:496 | | | | | |
| Site Designation:LMA-402 | | | | | |
| Repair Type: Erosion | | | | | |
| Rating:Area of Concern | | | | | |
| Field Date:8/18/2017 | | | | | |
| Notes: Start of outside bend. Minor toe erosion has displaced riprap. | | | | | |

Photo 1 of 3 : LEVAL_FA_2018_496_4367.jpg



* **Location**
 LS : Land Side N/A : Not Applicable
 WS : Water Side
 CR : Crown

** **Rating**
 A : Acceptable N : Not Inspected/Rated
 M : Minimally Acceptable C : Corrected
 U : Unacceptable A/W : Acceptable but Monitor & Maintain

+ **Issue Type**
 Ma : Maintenance Deficiency
 Ob : Design & System Obsolescence
 En : Enforcement

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 0001 Union Island

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|-----------------------|-------|------------|--------------------------|--------------------|
| Unit No. 01 Old River | Right | 1.14 | 10/09/2018 10/09/2018 | Richard Willoughby |

| | | | | | | | | | | |
|--|-------------------------|--------------|------------------------|--------------|------------------|--|--|--|--|--|
| LM Start | 0.31 | Rating ** | M | Issue No. | 11 (cont) | | | | | |
| LM End | 0.33 | Issue Type + | Ma | Location * | | | | | | |
| Category | Supplemental | | GPS Latitude/Longitude | | | | | | | |
| | | | Start | End | | | | | | |
| Item | 2017 Storm Damage | | 37.820300° | 37.820200° | | | | | | |
| | | | -121.379500° | -121.379800° | | | | | | |
| DWR ID | DWR_RD0001_01_f_2017_11 | | | | | | | | | |
| Comment Code | | | | | | | | | | |
| Inspector Comment | | | | | | | | | | |
| Levee Evaluation Comments Description: Slope protection repairs are needed along the waterside slope due to erosion and riprap displacement from high water. Based upon levee inspections, it was determined the waterside levee slope is eroding, deteriorating, and degrading. The eroded levee sections need to be restored back to design standards to prevent further deterioration and damage. Site ID No: 496 Site Designation: LMA-402 Repair Type: Erosion Rating: Area of Concern Field Date: 8/18/2017 Notes: Start of outside bend. Minor toe erosion has displaced riprap. | | | | | | | | | | |

Photo 2 of 3 : LEVAL_FA_2018_496_4371.jpg



| | | | | | |
|----------|-------------|--------------|----|------------|------------------|
| LM Start | 0.31 | Rating ** | M | Issue No. | 11 (cont) |
| LM End | 0.33 | Issue Type + | Ma | Location * | |

Photo 3 of 3 : LEVAL_FA_2018_496_4374.jpg

*** Location**

LS : Land Side N/A : Not Applicable
WS : Water Side
CR : Crown

**** Rating**

A : Acceptable N : Not Inspected/Rated
M : Minimally Acceptable C : Corrected
U : Unacceptable A/W : Acceptable but Monitor & Maintain

+ Issue Type

Ma : Maintenance Deficiency
Ob : Design & System Obsolescence
En : Enforcement

Levee Inspection Report By Mile - Fall 2018

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|-----------------------|-------|------------|--------------------------|--------------------|
| Unit No. 01 Old River | Right | 1.14 | 10/09/2018 10/09/2018 | Richard Willoughby |

Photo 1 of 1 : FA_2018_RD0001_23_7_20180906_00005.jpg



View of the erosion on the landside levee slope.

Photo 1 of 1 : FA_2018_RD0001_23_15_20180906_00012.jpg



View of the large rodent burrow in the landside levee slope.

Photo 1 of 1 : FA_2018_RD0001_23_4_20180906_00003.jpg



View of a large rodent hole on the landside levee slope.

| * Location | ** Rating | + Issue Type |
|--|---|-----------------------------------|
| LS : Land Side N/A : Not Applicable | A : Acceptable N : Not Inspected/Rated | Ma : Maintenance Deficiency |
| WS : Water Side | M : Minimally Acceptable C : Corrected | Ob : Design & System Obsolescence |
| CR : Crown | U : Unacceptable A/W : Acceptable but Monitor & Maintain | En : Enforcement |

**Flood Control Project Maintenance
Levee Inspections**

Levee Inspection Report By Mile - Fall 2018

Reclamation District No. 0001 Union Island

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|-----------------------|-------|------------|--------------------------|--------------------|
| Unit No. 01 Old River | Right | 1.14 | 10/09/2018 10/09/2018 | Richard Willoughby |

| | | | | | |
|---|----------------------|--------------|----|------------------------|---------------|
| LM Start | 0.85 | Rating ** | M | Issue No. | 22 |
| LM End | 0.85 | Issue Type + | En | Location * | |
| Category | Supplemental | | | GPS Latitude/Longitude | |
| | | | | Start | End |
| Item | DWR UCIP Field Study | | | 37.814601 ° | 37.814601 ° |
| | | | | -121.382509 ° | -121.382509 ° |
| DWR ID | 22691 | | | | |
| Comment Code | | | | | |
| | | | | | |
| Inspector Comment | | | | | |
| FS_ID:41600 DS_ID:22691 EP_NO: N/A Repair Type: Non-Urgent Crossing Status: Found UCIP Comments: - 2" electric conduit on WS- pipe exposed on both sides.- power pole on LS. - erosion on WS hinge near walkway. FIELD_STRUCT_DESC: 14-inch irrigation discharge pipe of an unknown material and a 2-inch electrical conduit of an unknown material through the levee, 6 feet below the crown. Pump on a pile structure in the stream. Air valve on the landside (LS) shoulder. 30-inch concrete standpipe on the LS toe. [Additional Reference(s): DWR Levee Log, 2005. USACE San Joaquin O&M Manual 8, 1968, (HLM 0.86)]. FS Date: 9/12/2013 | | | | | |

| | | | | | |
|----------|-------------|--------------|----|------------|------------------|
| LM Start | 0.85 | Rating ** | M | Issue No. | 22 (cont) |
| LM End | 0.85 | Issue Type + | En | Location * | |

Photo 1 of 3 : UCIP_FA_2018_41600_36004.jpg



WS view: exposed pipe, walkway, and pump on pile structure. Soil erosion on levee hinge near walkway.

Photo 2 of 3 : UCIP_FA_2018_41600_36003.jpg



WS view: exposed pipe, walkway, and electric conduit under walkway. Rock revetment on lower levee slope.

| | | | |
|--|--|---|---|
| * Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown | ** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable | N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain | + Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement |
|--|--|---|---|

Levee Inspection Report By Mile - Fall 2018

| Waterway | Bank | Unit Miles | Inspection Start/End | Inspector |
|-----------------------|-------|------------|--------------------------|--------------------|
| Unit No. 01 Old River | Right | 1.14 | 10/09/2018 10/09/2018 | Richard Willoughby |

Photo 3 of 3 : UCIP_FA_2018_41600_36002.jpg



LS view: exposed steel pipe on levee slope and concrete standpipe on levee toe.

Photo 1 of 2 : FA_2018_RD0001_23_3_20180906_000001.jpg



09/15/2018

View of the landside slope damaged by farm equipment.

| * Location | ** Rating | + Issue Type |
|--|---|-----------------------------------|
| LS : Land Side N/A : Not Applicable | A : Acceptable N : Not Inspected/Rated | Ma : Maintenance Deficiency |
| WS : Water Side | M : Minimally Acceptable C : Corrected | Ob : Design & System Obsolescence |
| CR : Crown | U : Unacceptable A/W : Acceptable but Monitor & Maintain | En : Enforcement |

Reclamation District No. 0001 Union Island

Looking west at untrimmed tree at landward toe. (Spring 2018)

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